Gentiana douglasiana Bong.

swamp gentian

Gentianaceae (Gentian Family)

Status: State Sensitive
Rank: G4S2S3

General Description: Adapted from Hitchcock et al. (1959): This annual herb has several erect, angled, freely branching stems that are 2 to 8 in. (5-20 cm) tall. The few basal leaves are egg-shaped to elliptic, 1/8 to 2/3 in. (5-15 mm) long, and form a rosette. The stem leaves are similar, 1/8 to ¼ in. (5-10 mm) long, opposite, fused at the base and slightly deccurent (the leaf base extends down along the stem). The flower stalk usually forms a loose cluster of flowers arising from the nodes of the stem leaves. There are stipules (leaf-like appendages) at the base of the leaf stalks. The 4 to 5 in. (10-13 cm) long white corollas display purplish streaks, and are tubular with 5 pointed lobes. The lobes are blue on the back, and the inner surface of the petal has pleats that are forked at the tip. The calyx is half the length of the corolla. The oblong capsules are wing-margined, and the spindle-shaped seeds are dark brown and 1/16 in. (1.5mm) long.

Identification Tips: *Gentiana douglasiana* is a distinctive species within the genus. It is the only annual gentian with white flowers, which are both five lobed and pleated, and are not fringed within.

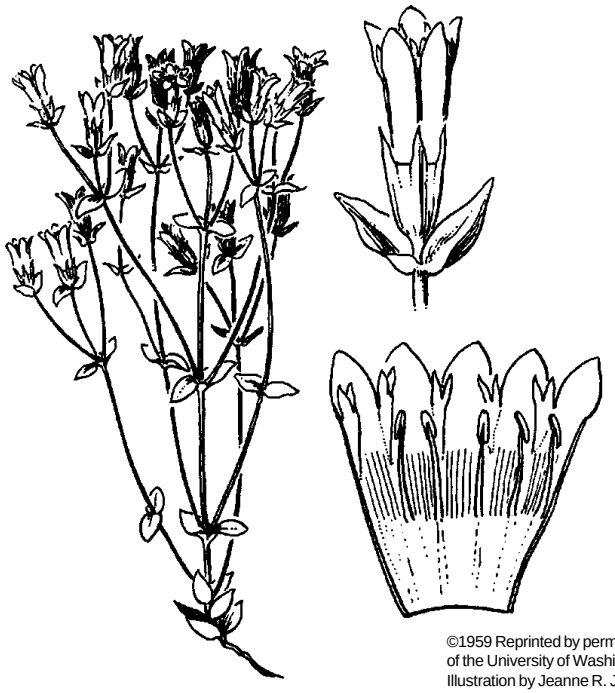
Phenology: This species blooms in July through September.

Range: This species is common in coastal British Columbia and north to south-east Alaska. It reaches the southern part of its range in Washington, and can be found in Clallam County and in far western Kittitas County.

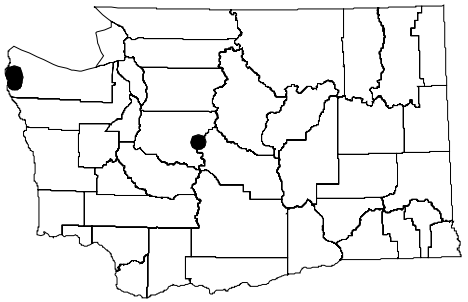
Habitat: This species is found in wet to moist meadows. In Washington it has been found from 20 to 3050 feet (6-930 meters) elevation, while in Clallam County it ranges from 20 to 240 feet (6-73 meters) elevation. Associated species at one or more sites include western red cedar (*Thuja plicata*), western hemlock (*Tsuga heterophylla*), alpine laurel (*Kalmia occidentalis*), bog Labrador tea (*Ledum groenlandicum*), bracken fern (*Pteridium aquilinum*), livid sedge (*Carex livida*), small cranberry (*Vaccinium oxycoccos*), white-beaked rush (*Rhynchospora alba*), sweet gale (*Myrica gale*), spiraea (*Spiraea* spp.), asters (*Aster* spp.), salal (*Gaultheria shallon*), and black crowberry (*Empetrum nigrum*).

Gentiana douglasiana Bong.

swamp gentian



Known distribution
of *Gentiana douglasiana*
in Washington



● Current (1980+)
○ Historic (older than 1980)

Gentiana douglasiana Bong.
swamp gentian

2005 Produced as part of a cooperative project between the Washington Department of Natural Resources, Washington Natural Heritage Program and the U.S.D.I. Bureau of Land Management. Persons needing this information in an alternative format, call (360) 902-1600 or TTY (360) 902-1125.

Gentiana douglasiana Bong.
swamp gentian

Ecology: In Kittitas County this species has been found in small boggy areas that appear to be undergoing succession to coniferous forest. In Clallam County it is found in meadow areas that are seasonally flooded, and which appear to be progressing to a western redcedar-western hemlock/salal-evergreen huckleberry (*Thuja plicata-Tsuga heterophylla*/*Gaultheria shallon-Vaccinium ovatum*) seral stage.

State Status Comments: There are fewer than twelve known occurrences in the state of Washington.

Inventory Needs: All of the occurrences in Washington were found between 1980 to 1994, and most have not been revisited. Known occurrences should be revisited, and subalpine areas in Kittitas and Clallam Counties should be systematically surveyed for additional populations.

Threats and Management Concerns: Natural succession may be causing loss of habitat for this species, as small bogs and wet meadows progress to forested habitats. Human activities on the landscape (timber harvest, fire suppression, road building, etc) may all directly or indirectly influence the suitability of existing habitat. The Kittitas County site is known to have been affected by construction activities and by maintenance activities on an immediately adjacent major road.

References:

Douglas, G.W., G.B. Straley, D. Meidinger, and J. Pojar. 1999. *Illustrated Flora of British Columbia* vol. 3: *Dicotyledons (Diapensiaceae Through Onagraceae)*. Ministry of Environment, Lands and Parks, Victoria, British Columbia. 423 pp.

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1959. *Vascular Plants of the Pacific Northwest* Part 4: *Ericaceae Through Campanulaceae.* University of Washington Press, Seattle, WA. 510 pp

2005 Produced as part of a cooperative project between the Washington Department of Natural Resources, Washington Natural Heritage Program and the U.S.D.I. Bureau of Land Management. Persons needing this information in an alternative format, call (360) 902-1600 or TTY (360) 902-1125.